

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003834**Date Inspected:** 07-Sep-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 2300**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Chen Xi**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Larry Viars was present to observe the Production Monitoring Test (PMT) for Orthotropic Box Girder (OBG) Deck panels, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

Sub Assembly Shop Bay 1:

Sub Assembly Bay 1- During random visual observations the Caltrans QA Inspector found a 90 mm tack weld crack on Deck panel DP595-001 stiffener weld 022 located on gantry # 1. The crack was shown to ZPMC QC Chen Xi. Mr. Chen stated that the crack would be removed and Magnetic particle testing would be performed. Please see the attached photo below of the tack weld crack.

The Caltrans QA Inspector monitored the OBG Production Monitoring Test (PMT) for Deck Panels DP545-001 and DP605-001. Prior to GMAW welding two u-rib panels were found to have a root gap of up to .95 mm. The majority of gaps in excess of .5 mm appear to adjacent to tack weld ends where grinding has been performed to remove indications. The panels were replaced and were inspected by ZPMC, ABF and CT. The Caltrans QA inspector recorded amperage, voltage and travel speed of the Gas metal Arc Welding (GMAW) root pass and the Submerged Arc Welding (SAW) cover pass. A Visual inspection of the root pass and cover pass was performed by ZPMC, American Bridge Flour (ABF) and the Caltrans QA. The Caltrans QA observed ZPMC QC Xue Hai Rong perform Ultrasonic testing of the Partial Joint Penetration weld for depth of penetration. Mr. Xue found the depth of penetration of the PMT welds to be in compliance with contract documents. The Caltrans QA inspector designated locations for Macroetch samples (15 locations). Macroetch samples were evaluated with a 7x optical

WELDING INSPECTION REPORT

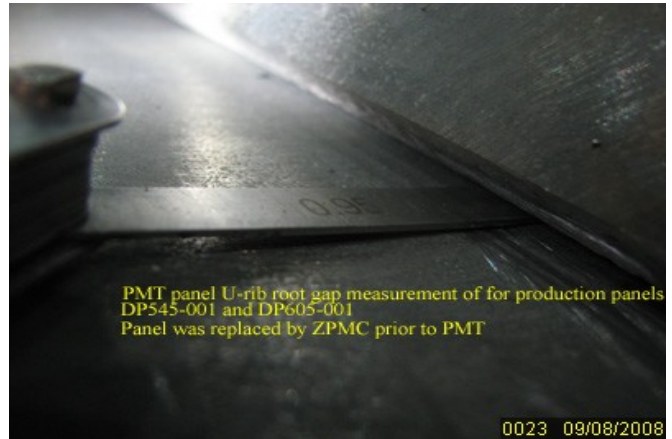
(Continued Page 2 of 2)

comparator and accepted by ZPMC QC, ABF QC and The Caltrans QA Inspector. Please see attached photo of .95 mm gap of PMT panel prior to replacement by ZPMC.

DP545-001 Tack welding and grinding completed ZPMC has not performed MT of said tack welds.

DP605-001 Tack welding completed and no grinding performed.

No other activities observed.



Summary of Conversations:

As identified within the contents of this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ryan Smith, (858) 232-6799, who represents the Office of Structural Materials for your project.

Inspected By:	Viars,Larry	Quality Assurance Inspector
----------------------	-------------	-----------------------------

Reviewed By:	Lanz,Joe	QA Reviewer
---------------------	----------	-------------